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MARINE INDUSTRIES OF EASTERN ARABIA

RICHARD LeBARON BOWEN, JR.

361 226 503 315 THE Persian Gulf coast of Saudi Arabia is desolate in the extreme: in many places one travels along the beach for dozens of miles without seeing a living soul. But there is a sprinkling of old coastal towns, whose inhabitants for the most part gain their livelihood from the sea. Among them are Jubail, long a port of entry for the capital city of Riyadh, 235 miles inland; Dammam, seaport for the Qatif and Safwa oases (a deep-water pier has recently been constructed at Dammam); Al Khobar and Oqair, ports for the great oasis of Hofuf (Hasa). To these have been added of late years Arabian American Oil Company settlements at Ras al Mish'ab (a construction camp and port facilities), Nejma (a refinery and camp), and Ras Tanura (pipeline terminus and cargo wharf).

Fishing

226 262 Foremost among the marine activities of the older coastal towns is fishing. Although there are far fewer species of fish in the Persian Gulf than in the Indian Ocean, they are present in greater numbers, particularly the porgies, than one might expect in so warm a body of salt water, and fish form a welcome addition to the diet in a land where food is pitifully scarce.

226 [857 504] Fishing methods range from a simple hand line to large and complicated fishweirs. On land the hand line is used mainly by small boys, who, like the small fry of any other country, enjoy fishing. Since there is an almost complete lack of jetties and piers, these young fishermen have to stand on the beach and heave their weighted lines as far as they can (Fig. 2). When the fish are running, these youngsters line the shores, and their catch is sometimes sizable. Hand lines are indispensable on every dhow and are thrown out as soon as the boat is in open water.

A more advanced type of fishing uses the throw net—a circular net about 16 feet in diameter made of quarter-inch-mesh netting. The periphery is weighted with small lead weights, then doubled back toward the center and tied at 12-inch intervals to form a continuous pocket some six inches deep. The fisherman walks in knee-deep water at low tide, holding his net —which he has folded and gathered with the perfection of a parachutist—

➤ DR. BOWEN is a chemical engineer now resident in Providence, R. I. His field experience in Arabia includes three years with the Arabian American Oil Company (1945 to 1947) and some months as technical and engineering adviser to the Arabian expedition of the American Foundation for the Study of Man (1950).

3: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

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FIG. 1—Location map. Inset shows places mentioned in the text.

with both hands and his teeth. When he spots a school of fish, he flings the 226
net into the air with one arm (much like a man sowing seed) and a snap of his head. The net opens out flat and drops on the water; the weights carry the outside to the bottom faster than the center. The fisherman then picks up the net by the center, and any fish under it immediately swim toward the edge and are trapped in the pocket. He keeps pulling the center through one hand and folding it up, and when he has finally gathered in the whole net, he carefully removes the fish flopping around in the pocket, puts them in a palm-leaf basket, and starts all over again.

The Arabs also use wire and palm-leaf basket fishtraps (Fig. 4). These 231
are oval-shaped, from two to five feet long, with a cone-shaped entrance 262
on each end through which the fish cannot squeeze out. The traps are usually baited with cuttlefish, forbidden to the Arabs by a strict interpretation of

3: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

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FIG. 2—Arab boys fishing with hand lines. When the fish are running, small boys often line the shore by the dozen.

the Koran, but a particularly juicy delicacy from a fish's point of view. The Arabs dot the shallow water with these basket traps at points where feeding appears good; the edges of small coral reefs are favorite spots.

The Arab fisherman never marks his traps with floats as the American lobster fisherman does, because he fears they will be plundered; he must remember the location of each trap. Where he cannot see the bottom, he suspends a float several feet below low-tide level. To tend his traps, this Arab rows his small boat up and down at low tide until he spies his trap or float and hooks it with a pole; in shallow water he sometimes dives for the trap. I once watched a crew of three fishermen off Ras Tanura; they seemed to know the approximate location of each trap in the 30 feet of water, but they spent as much as a quarter of an hour peering into the water to find each submerged float. These men used the largest wire traps I saw in the Persian Gulf, and their catch at times was astounding.

The Arabs on the east coast of Arabia seldom use seines, though on Bahrein Island I saw several drying in the sun. However, large communal seines have apparently been used on the Batinah Coast of Oman; for Thomas[1] relates that "there, a hundred fishermen were hauling ashore a communally owned net, the vast extent of which was marked by distant bobbing floats . . . In contrast, a lone fisherman, far out, monotonously cast his circular hand-net." On the Hadhramaut coast of South Arabia the fishermen also use large seines. At Mukalla I saw a two-and-a-half-inch-mesh net 190 feet long and 20 feet wide; a narrower net had a mesh of five inches. These wide-mesh nets are used for sharks. Farther east on this coast, at Jazir Bay, the fishermen set their seines by swimming out to sea on inflated sheepskins!

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[1] Bertram Thomas: Alarms and Excursions in Arabia, London, 1931, p. 156.

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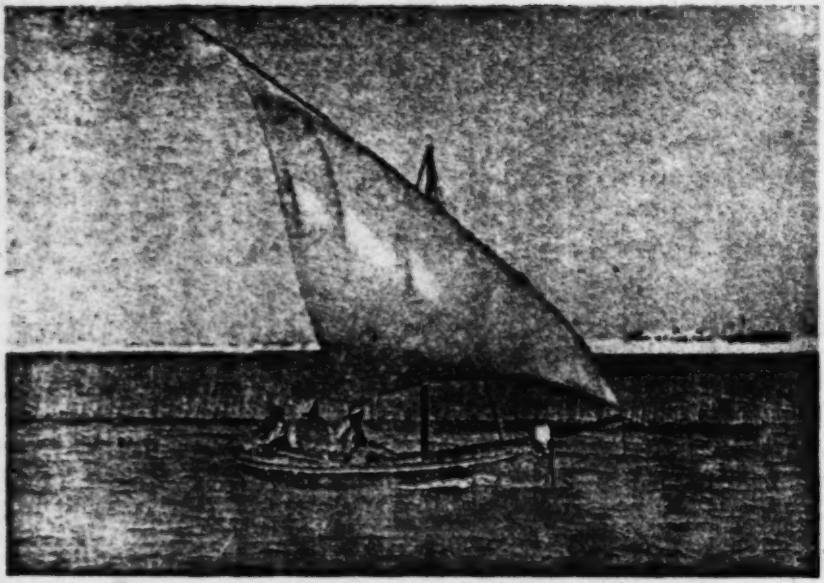

FIG. 3—Arab fishing dhow (*jalbut*) typical of eastern Arabia. The outside wing of a large funnel-type fishweir may be seen directly behind the boat.

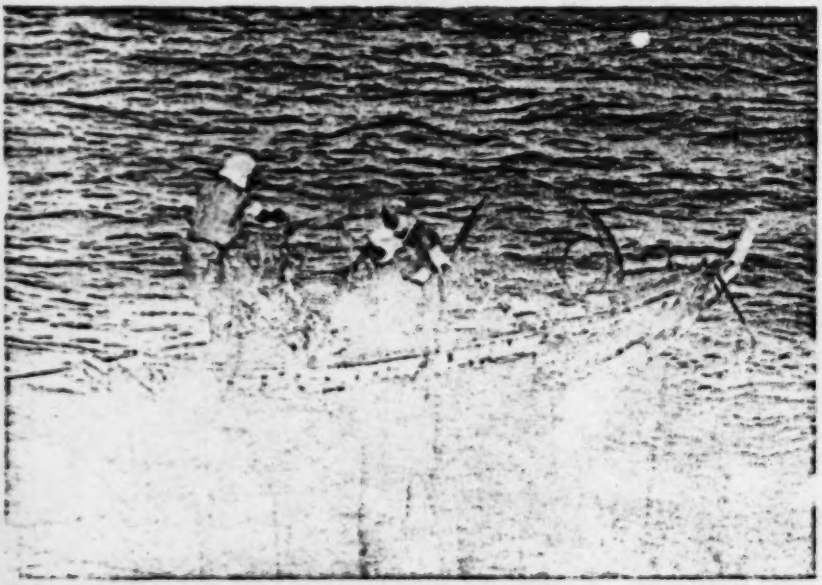

FIG. 4—Fishermen tending their basket fishtraps from a *bellam* in 30 feet of water. These traps are marked with floats suspended just below low-tide mark.

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FIG. 5—Outside wing of a funnel-type fishweir showing the inside of the secondary enclosure at the left. The primary enclosure, or "head," of the trap is outside of the photograph.

FIG. 6—Entrance to the secondary enclosure of a spear-type fishweir; the "head" is at the extreme left, the leader running to shore at right. The trap is almost completely submerged at high tide.

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FISHWEIRS

[285] 226 The largest catch of fish on the Persian Gulf coast of Saudi Arabia and Bahrein Island comes from huge weirs, made from the stems of palm trees. The Arabs build these fencelike traps by driving a steel bar into the mucky bottom and inserting a palm stem into the hole as they withdraw the bar (Fig. 13); the stems are spaced close enough so that no fish can pass through and are tied together. There are two types of weir: a funnel type and a spear type.

[133] In the Persian Gulf the maximum tidal drop is about eight feet. The fishweirs are built so that at low tide there is only a few feet of water on the offshore end of the weir. Where the ebbing tide sets up a definite current, the funnel type (Fig. 7) is used, placed so that the current washes through the trap. The fish carried along in the current are forced through the funnel into the stockade of the weir, the entrance of which is out of water at low

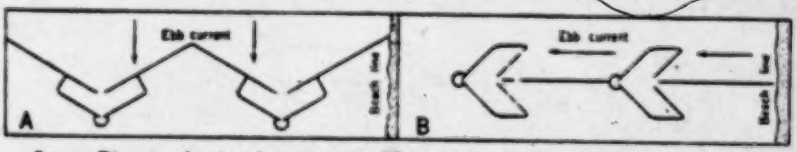

FIG. 7.—Diagrams showing the two types of fishweir. The funnel type (A) catches fish that are washed into the enclosure on an ebbing tide. The spear type (B) is most effective in the case of fish moving parallel to the shore, since the ebbing tide causes only a slight current. Both types are found either singly or in a row, as illustrated.

tide. These weirs are usually built with the central axis parallel to the shore; however, in Tarut Bay many are not near any shore but are set across tidal currents in shallows. Sometimes several traps are set in a row. It is not exceptional for the ebb current in Tarut Bay to reach three knots in some places.

Where the tidal ebb sets up merely a slight motion, the spear type of weir (Fig. 7) is used; the axis is oriented at right angles to the shore. As with the funnel type, several weirs are sometimes set in a row. Most of the fishweirs on Bahrein Island are of this type. The fish swim inshore on a flooding tide and out on an ebbing tide, and thus tend to work into the weirs; these traps are most effective in catching schools of fish swimming parallel to the shore. This type of weir is less effective than the funnel type, because its action is less positive.

Thus when the tide has gone out, the fisherman has a stockade of fish. He enters this stockade, or "head" of the weir, which is 10 to 15 feet in diameter (Fig. 8), with a net hitched to two 3-foot palm-stem poles. Holding

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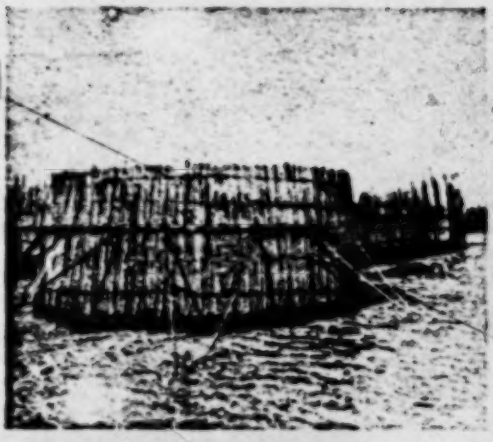

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Pic. 8 (upper left)—The enclosure, or primary enclosure, of a fishweir, encircled with rope and baited down to prevent large fish from breaking out.

Pic. 9 (upper right)—Working around the edges of the [illegible] with a fine-mesh hand net. Note the long burlap skirt, frequently worn by fishermen in colder weather.

Pic. 10 (lower left)—Transferring the fish from the hand net into a palm-leaf basket. Note the narrow entrance into the primary enclosure formed by the wings of the secondary enclosure; this entrance becomes narrower toward the bottom.

Pic. 11 (lower right)—Carrying the basket of fish ashore, slung from an oar. Fishweirs in the background.

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226 one in each hand (Fig. 9), he works the net around the edge of the stockade and empties the fish into palm-leaf baskets (Figs. 10 and 11). Most of the fish weigh less than a pound, but it is not unusual for a weir to yield many hundreds of pounds of fish in a tide change, though sometimes only enough are caught to feed the fishermen. The fish are usually sorted into two or three grades and are often sold on the spot. Several times I saw sharks as large as six feet trapped in the stockade; extracting these monsters was a delicate task. Most of the cuttlefish used as bait in the basket fishtraps come from these palm-stem fishweirs.

There seems to be a direct correlation between the amount of fish caught in a weir and the wind velocity, at least on the Ras Tanura peninsula. The Arabs can estimate their catch simply from the atmospheric conditions prevailing before low tide: if the *shamal*, the strong north wind, has been blowing, the haul is sure to be good.

I never saw the effect of the wind fail. In the fall jumbo shrimp, equal to any found in the Gulf of Mexico, are caught in these weirs. If there had been little wind, the catch would be small, but if the wind had been considerable, there were sure to be several dozen nice shrimp. The 10 weirs on the Tarut Bay side of Ras Tanura yielded at the most only several dozen shrimp, most of which came from two funnel weirs; the shrimp that appeared in local markets in large quantities came from the weirs on the flats around Qatif. The shrimp in Arabian markets is sun-dried, so that it can be stored and sold in any season. [251]

As a rule, the men who work a fishweir get half the profits, and the owner gets the other half. The profits are figured by deducting from the gross return the cost of the workers' food and of the material required to maintain the weir. If a trap fails to produce, the owner sometimes supplies the tenders with cash, which must be repaid later.

In summer the daylight low tide in the Persian Gulf at Ras Tanura is about two feet higher than the minimum in February. The water does not get low enough in the weirs to trap fish effectively, and the summer catch is therefore poor. Usually trap tenders are assigned to pearl diving and rock mining, possible only in the warmer months; one man is left to collect the small catch and keep the weir in condition. When Ramadan, the great Moslem fast month, falls in summer, the Arabs on Tarut Bay allow their fishweirs to fall into disrepair. It is surprising how fast a weir will disintegrate under even the slight wave action in a sheltered area such as Tarut Bay. In 1945 there were several strong shamals during Ramadan (then the last two weeks in July and the first two in August), which, coupled with the [228 464]

[Text continued on p. 393]

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FIG. 12—Hand nets drying on the inside wing of a funnel-type weir.

FIG. 13—Mending the weir. Arab in foreground is making a hole with a steel bar, into which a palm stem will be inserted by the other Arab.

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wave action, completely leveled almost all the 10 fishweirs on the Tarut Bay side of the Ras Tanura peninsula. All during the fishing season constant maintenance is necessary (Fig. 13).

Because of its shoal water, Tarut Bay is the only place along the Persian Gulf coast of Arabia where large fishweirs can be built, and one of the best weir locations in Tarut Bay is off the Ras Tanura peninsula. Things went peacefully among the weir tenders and owners until 1945, when the Saudi Arabian refinery project started in high gear. A deepwater oil-loading pier was built on the Gulf side of the end of the peninsula, and a huge pipeway was run from this pier to the refinery, some eight miles away. The pipeway passed close to several of the Tarut Bay fishweirs, and the considerable fill dumped into the bay changed the shore contour slightly

The Arab fishweir owners, ever alert to monetary opportunity, brought suits against the Arabian American Oil Company, asserting that the change in contour had reduced their fish catches and that the company's grading equipment had damaged some of their weirs. After the refinery was partly completed in October, 1945, oil was occasionally spilled into Tarut Bay and provided another complaint for the Arabs, who said that the oil contaminated their weirs. These complaints were such an annoyance to the oil-company executives that they instructed their agents to buy the fishweir rights. By 1947 only three of the original 10 weirs were left; the total price paid was about 72,000 Saudi riyals ($22,000). This money enriched the few Arabs who held the rights to the weirs, but to the Arabs in the Qatif Ras Tanura area the sale was an economic blow, for much of the fish supplied to Hasa Province came from the Ras Tanura traps.

Rock Mining

Another marine occupation is the "mining" of dead coral rock. Two types of coral are mined: *faroush* and *hasa*. Faroush is found on flat bottoms in level layers three to six inches thick. Four-man diving crews, operating from shallow-draft dhows[2] 30 to 45 feet long, pry a huge slab loose with iron bars or by simply lifting its edge. A rope is thrown around the slab, and it is hauled to the dhow, where it is broken up into easily handled pieces (Fig. 14). Diving for faroush can be relatively dangerous: I saw a diver with

[2] For a description of the dhows used in the marine industries of eastern Arabia see R. LeB. Bowen, Jr.: Arab Dhows of Eastern Arabia, *Amer. Neptune*, Vol. 9, 1949, pp. 87–132. The dhows are usually *jalbuts* (see Fig. 3 of the present article), but Bahrein and Kuweit send many *booms* and *sambuks* to the pearl fisheries in addition to the jalbuts. A few small *shoovs* and *ballams* are also used by the fishermen (see Fig. 4 of the present article).

S. Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

228 his great toe completely severed by a large piece of faroush that had slipped and hit his foot as he stood on the sea bottom.

Hasa, known to Americans familiar with native construction in Arabia as "sea rock," is found on the sea bottom in more or less solid deposits, from which a diver pries pieces (Fig. 15). Faroush is much more difficult to mine: it takes at least a day to get a boatload, whereas a crew may get three

FIG. 14—Author standing by slabs of *faroush* on the shore of Bahrein Island. Faroush is mined near Bahrein in much larger pieces than in Arabian waters. Pile of *hasa* in right background.

or four boatloads of hasa a day. Faroush is sold by the square measure, hasa by the cubic measure.

228 The rock divers, like the pearl divers, work only in the warmer months. 464 Since they generally work in water that is shallower than the pearl waters and therefore remains warm longer, the mining season is two or three months 461 longer than the pearling season, which is only four months. The rock divers do not work constantly, hour after hour, day in and day out, as the pearl [339 divers do, since each boatload has to be sailed to shore. A small stock pile 317] of faroush and hasa is always maintained in every seaboard town, and most of its buildings are constructed from these two rocks. Lime is made by burning hasa.

426 The crews mining coral rock work on the "debt system," notoriously 465 exploited in the Persian Gulf pearling industry. Although they are paid good

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wages, they are given cash advances and food during the winter and during slack periods. They never seem able to pay off their debts to the dhow owners.

Pearling

The most colorful marine industry of the Persian Gulf is pearling.[3] Pearling is definitely a seasonal occupation, confined to the months when

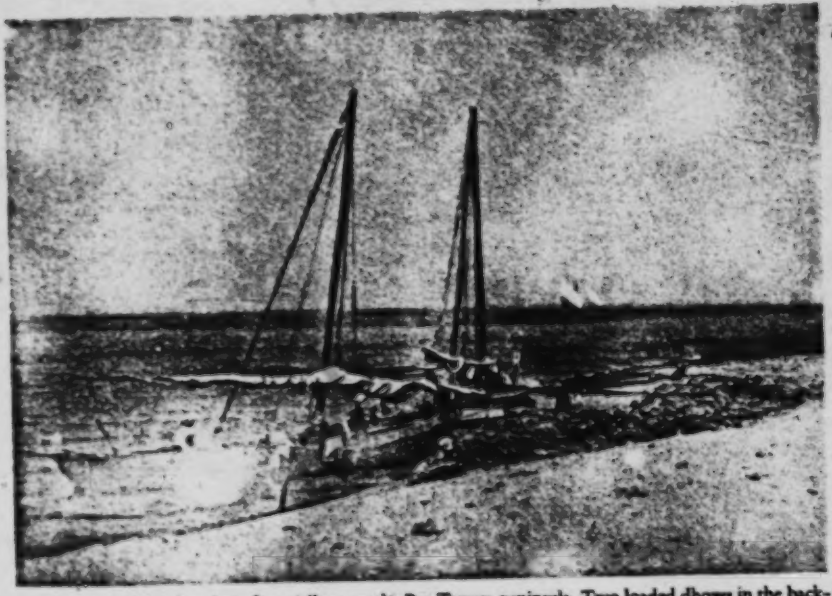

Fig. 15—Unloading hasa from jalbuts on the Ras Tanura peninsula. Two loaded dhows in the background are bringing in more.

the water is warm. On the Persian Gulf coast of Arabia the minimum winter air temperature is in the middle forties, the shallow-sea temperature in the low sixties. From long experience the Arabs have found that they can begin deepwater diving in June and continue until the first week in October. At the start and finish of the season the surface-water temperature is about 85°, but the deep-water temperature is considerably less; the maximum surface-water temperature may exceed 100° in August. Before this main season the *ghaus al-kabir* (great diving), there is a season of about two months, known as the *ghaus al-barid* (cold diving), when smaller boats work the shallower waters near their home ports; during the winter many men go out as "waders" at low tide to pick up what they can just below tide level.

[3] See also R. LeB. Bowen, Jr.: The Pearl Fisheries of the Persian Gulf, *Middle East Journ.*, Vol. 5, 1951, pp. 161–180.

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FIG. 26—Emir Nasir of Dubai with a season's crop of pearls from his pearling jalbuts.

Pearl oysters are found from low-tide level to 20 fathoms. There are pearl beds off the whole Arabian coast from Bahrein to Ras al Mish'ab, but the best banks are north and east of Bahrein Island, and the best beds between 5 and 10 fathoms. The beds are not charted; indeed, this would be useless, since they shift periodically. A bank may be sterile for several years and then suddenly produce the finest pearls of the season. The Arabs believe that the best pearls—the largest and whitest—come from deep water, though some of the more pessimistic say that the Persian Gulf never yields more than two first-class necklaces in any one season.

The pearling boats leave Bahrein, Kuweit, and the Trucial Coast of Oman for the main season en masse to drum beating and chants, but the few dhows from the Saudi Arabian ports slip out unceremoniously. The Bahrein fleet works up, the Kuweit fleet works down, and the small Saudi Arabian fleet works in the middle.

The *nakhoda* (captain) of a pearling dhow orients his craft at the edge of a bed so that when the anchor line is paid out, the dhow will drift across the bed. When the divers start to get only a few oysters, the dhow is allowed to drift a little. When it is completely across the bed, the crew moves it back to a fresh location with the sweeps, to the accompaniment of drum beating and chants. It is here that the nakhoda shows his real skill and knowledge, for he must keep his craft in virgin water.

Pearl diving in the Persian Gulf is essentially "skin diving." The diver wears only a loincloth and leather fingers to protect his fingers from sharp coral and shells; a horn noseclip and cotton or beeswax to stuff into his ears complete the "equipment." The use of drags, dredges, or compressed-air diving suits has been prohibited by the British, long the protectors of the Persian Gulf, and only the inhabitants of the Gulf—Arabs and Persians—can work the pearl fisheries.

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Each diver has two lines, one attached to a stone or iron diving weight; so that they will not become fouled, they are passed over sweeps left projecting over the gunwales athwartship and lashed down to the tholepins. The diver puts his feet into a loop over the diving weight (or simply lets the rope pass between his toes), releases the rope by untying a slipknot, and, holding the rope tightly, plummets to the bottom. As soon as he releases the line with the weight attached, the attendant hauls it to the surface. In the meantime the diver frantically plucks all the oysters he can before exhausting his air. He usually crawls on one hand and one foot, propelling himself with his free foot and collecting the oysters with his free hand. He puts the oysters into an open-weave palm-leaf basket fastened to his waist or around his neck, or hitched to a rope (which he holds or which is tied to his body). When he is ready to come to the surface, he jerks this rope.

The maximum depth at which the divers work is about 12 fathoms (72 feet). The average length of time they remain under water has been greatly exaggerated: some stories say 5 to 10 minutes. Villiers,[4] who spent two months on a buyer's *jalbut* with the Kuweit fleet, states that the divers stayed under water from 40 to 90 seconds, averaging about a minute. O'Shea[5] spent some time with the divers of the Trucial Coast, and he also states that the time averaged about a minute, ranging from 40 to 75 seconds. Hugh Smith[6] observes that the Arabs are the best divers employed in the Ceylon fisheries, staying down from 60 to 90 seconds; he cites an authentic case of an Arab who stayed down 109 seconds in 7 fathoms of water.

Ordinarily the diver remains under water for about a minute and rests for two or three minutes; on a good day he may make 30 or 40 dives, totaling half to three-quarters of an hour, and by the end of the season he may have completed more than 3000 dives in 30 to 50 feet of water.

The diver's worst enemy is fatigue. He has little fear of sharks and, indeed, is seldom bothered by them, though O'Shea[7] speaks of an attack on 30 divers, two of whom were killed under water. Whitelock[8] states that the greatest fear of divers on the Trucial Coast is the sawfish, which has been known to cut divers in two. The creature most feared by the divers in the Persian Gulf, at least on the north banks between Kuweit and Bahrein, is a jellyfish known to the Arabs as the *dawl*, which has two- to three-foot

[4] Alan Villiers: Sons of Sinbad, New York, 1940, p. 392.

[5] Raymond O'Shea: The Sand Kings of Oman, London, 1947, p. 137.

[6] H. M. Smith: The Pearl Fisheries of Ceylon, *Natl. Geogr. Mag.*, Vol. 23, 1912, pp. 173–194; reference on p. 182.

[7] *Op. cit.*, p. 138.

[8] H. H. Whitelock: An Account of the Arabs of the Pirate Coast, *Trans. Bombay Geogr. Soc.*, Vol. 1, 1844, pp. 32–49; reference on p. 43.

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136 stinging tentacles that can easily put out an eye. There is also a needle urchin (*Diadema*), first reported from the Persian Gulf in 1949.[9] This urchin has spines more than a foot long, which can cause nasty, slow-healing wounds. However, as the urchin is several feet in diameter, black, and slow-moving, it is more easily avoided than the dawl.

164 752 Pearl divers suffer from a variety of diseases, most of which can be directly traced to their occupation. Open sores and skin ulcers result from encounters with the dawl and scrapes against coral and other sharp objects. Suppuration of the eardrums, rheumatism, and nosebleeds are common. Inflamed eyes are always a sign of the pearl diver. Persian Gulf divers are more susceptible to the "bends" than divers who use suits, since they must surface as rapidly as possible.

262 461 Divers never eat while they are working. When the day's diving is finished, the diver has some rice, dates, and tea, but not much else; sleep is his only energy builder. Every 10 days or so the divers get a rest, and every three weeks or so the dhows put in for food and water unless they have been revictualed at sea.

228 312 502 438 In recent years Ras Tanura has become a center of activity for the pearling fleet off its shores; for the oil company's installations can now pump an abundance of fresh water into the water tanks of the dhows much faster than it can be transferred by waterskins. The larger vessels anchor for the night on the banks; the smaller vessels sometimes take shelter if it is available. Some vessels of the pearling fleet replenish their water supply from the submarine springs that gush into the Persian Gulf in numerous places along the Arabian littoral. Relatively fresh water can be brought up in a waterskin by a diver. One of these springs, marked by a spar buoy, is to be found a few miles north of Jubail.

228 The first duty of the day on a pearling dhow is opening the previous day's oysters, which are heaped on deck in a large pile so that no one knows who found the oyster which may produce the rare gem. The muscles of the oysters relax enough overnight so that it is not difficult to open them. Less than a third of the oysters yield pearls, and these are usually only very small seed pearls.

228 442 439 Pearls are sometimes bought on the pearl banks by brokers who travel around in their own boats trying to get the best pearls before other brokers hear of them, and trying to get a valuable pearl before a nakhoda realizes its value. But whether the pearls are sold on the banks or at Bahrein, they all end up in Bombay.

113 [9] A. H. Clark and R. LeB. Bowen, Jr., Echinoderms of Tarut Bay and Vicinity, Saudi Arabia, *Amer. Museum Novitates*, No. 1390, 1949.

228 all end up in Bombay. The Indians drill, polish, and grade the pearls, and
442 string them on silk; these short strands are known as "Bombay bunches."
439 Before World War II the pearls were sent to India by streamer; today they
509 are usually sent by air from Bahrein, Kuweit, Sharjah, and Dharan. The pearls are usually sold to Indian merchants in these towns, but occasionally the Arabs themselves take the pearls to Bombay.

228 After all the pearls have been sold, the nakhoda figures out the season's
465 profit. The owner of the dhows gets half the profit; the other half is divided among the crew. Most of the pearling dhows out of Saudi Arabian ports are small (not more than 40 feet), with crews of ten -- six divers and four attendants -- in addition to the nakhoda. Each diver and each attendant gets one share in the profits (about 4 per cent); the nakhoda gets two shares, unless he owns the dhow and longboat, in which case, of course, he gets more than half the profit. The number of shares each of the crew, the nakhoda, and the owner get is agreed on at the beginning of the season and may vary from place to place. Many of the pearling dhows out of Kuweit and Bahrein are considerably larger than those out of the Saudi Arabian ports and may have crews of forty or more; on these the nakhoda gets a larger number of shares.

Pearling is a gamble for everyone concerned, from the merchants to the divers. Some seasons are good, some bad; sometimes a boat has bad luck, sometimes excellent luck. A share on a pearling dhow should be worth several hundred rupees, but it may not be worth fifty.

228 Usually a share on a pearling dhow represents a year's wages, since the
426 pearling industry operates under the "debt system" mentioned above (not to be confused with the "truck system" of pearl fisheries elsewhere, in which the divers are paid off in produce). Under the debt system the divers and attendants are given cash advances during the winter season, when they are not working, and their families are given food and supplies while the season is on. The advances are deducted from their calculated shares, so that usually the worker gets little or nothing.

Thus the divers and attendants are perpetually in debt. Once a worker is in debt to a nakhoda, he cannot work for anyone else during the pearling season; this is one of the laws of the industry. He has virtually sold himself into economic slavery to the nakhoda, who has his services and never actually has to pay him anything, whereas he in effect pays the nakhoda in the pearls he produces. However, it should be remembered that the nakhoda is in turn usually in debt to some merchant, who commonly finances numerous nakhodas.

3: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

228 656 672 426 On Bahrein and in Kuweit the governments have made reforms in the pearling industry. On Bahrein a pearl diver's debts now die with him; in other places a diver's debts are passed on to his son or brother. The Bahrein government also demands that account books be kept for each diver, and the cash advances are agreed upon at the beginning of the season.

228 However, there has been a drastic change in the Persian Gulf pearling industry. The great depression after World War I and the competition from Japanese cultured pearls dealt the pearl fisheries a serious blow. Twenty-five years ago there were nearly three thousand dhows engaged in pearling in the Persian Gulf; today there are not more than six hundred. In the twenties the east-coast ports of Saudi Arabia probably sent several hundred boats to the pearl fisheries annually; today there are not more than several dozen. In the twenties the value of the Persian Gulf pearl fisheries was more than a million dollars; today it is less than a quarter of a million.

228 464 Thousands of divers and attendants were thrown out of work. In Kuweit numerous pearlers found employment on sailing ships traveling to India and Africa. On Bahrein Island many were absorbed by the rapidly expanding oil industry. In Saudi Arabia oil development came late, and the unemployed pearlers had already been absorbed as fishermen, rock miners, and farmers; in fact, so well adjusted were the Saudi Arabian towns that when the Arabian American Oil Company needed large amounts of labor in 1945, it had to hire Bedouins from the desert. Oil came late to Kuweit also; however, here workers were drawn from the marine industries, since the Kuweit Oil Company paid higher wages than the workers could get as sailors, pearlers, or fishermen.

Oil has thus been able to offer salvation to the lowly coastal worker of the Persian Gulf. A man in debt can now get a job with an oil company and pay off his debt. So effective has this proved that the Kuweit, Bahrein, and Saudi Arabian nakhodas have difficulty in getting men to send to the pearl fisheries, or to man the sailing ships going to India and Africa. However, oil has yet to come to Oman, so that pearlers still leave the Trucial Coast in large numbers, and many Oman dhows from Sur still sail down to Africa.